

[UNITARY DIAPHRAGM AND SEAT ASSEMBLY]

Abstract of Disclosure

A unitary diaphragm and seat assembly for making the removal and replacement of diaphragms and seats practical, simple, and easy is taught. The inventive device includes a diaphragm cap, one or more diaphragms, and a diaphragm plate all respectively stacked and welded together in concentric alignment. A valve seat is attached to the lower face of the diaphragm plate. This assembly is concentrically retained within the valve body. The valve actuator installs over the top of the assembly and mechanically attaches onto the valve body. The diaphragm cap is a tubular shaped metal structure. The diaphragm is a circular thin metal disc preferably dome shaped. The diaphragm plate is a disc shaped metal structure having an upper and lower face. The valve seat is a tubular plastic structure. The valve body is a metal structure containing fluid ports and attachment means to a valve actuator. The valve actuator can be any assembled structure that can selectively apply or remove a force upon the diaphragms and is mechanically attached to the valve body.

Figures